From 1996 to 2000, a complex mix of factors—such as competitive pressures, valuable side benefits, climate concerns, and e-commerce's structural shifts—unexpectedly pushed the pace of U.S. energy savings to nearly an all-time high, averaging 3.1 percent per year despite the record-low and falling energy prices of 1997–99. Meanwhile, investment in energy supply, which is slower to mature, lagged behind demand growth in some regions as the economy boomed. Then in 2000, Middle East political jitters, OPEC machinations, and other factors made world oil prices spike just as cold weather and turbulence in the utility industry coincidentally boosted natural gas prices. Gasoline prices are rising this year—even though crude-oil prices are softening—due to shortages not of crude oil but of refineries and additives. California's botched utility restructuring, meanwhile, sent West Coast electricity prices sky-high, although not for the oft-cited reasons. (Demand did not soar, and California did not stop building power plants in the 1990s, contrary to many observers' claims.)

The higher fuel and electricity prices and occasional local shortages that have vexed many Americans this past year have rekindled a broader national interest in efficient use. The current economic slow-down will further dampen demand but should also heighten business interest in cutting costs. Efficiency also lets numerous actors harness the energy market's dynamism and speed—and it tends to bear results quickly. All these factors could set the stage for another price crash as burgeoning energy savings coincide, then collide, with the new administration's push to stimulate energy supplies. Producers who answer that call will risk shouldering the cost of added supply without the revenue to pay for it, for oil prices high enough to make refuge oil profitable would collapse before or as supply boomed.

Policymakers can avoid such overreaction and instability if they understand the full range of competing options, especially the ability of demand to react faster than supply and the need for balancing investment between them. As outlined above, in the first half of the 1980s, the U.S. economy grew while total energy use fell and oil imports from the Persian Gulf were nearly eliminated. This achievement showed the power of a demand-side national energy policy. Today, new factors—even more powerful technologies and better designs, streamlined delivery methods, and better understanding of how public policy can correct dozens of market failures in buying efficiency—can make the demand-side response even more effective. This can give the United States a more affordable and secure portfolio of diverse energy sources, not just a few centralized ones.

IT'S EASY (AND LUCRATIVE) BEING GREEN

Oil is becoming more abundant but relatively less important. For each dollar of GDP, the United States used 49 percent less oil in 2000 than it did in 1975. Compared with 1975, the amount that energy efficiency now saves each year is more than five times the country's annual domestic oil production, twelve times its imports from the Persian Gulf, and twice its total oil imports. And the efficiency resource is far from tapped out; instead, it is constantly expanding. It is already far larger and cheaper than anyone had dared imagine.

Increased energy productivity now delivers two-fifths of all U.S. energy services and is also the fastest growing ''source.'' (Aboard, renewable energy supply is growing even faster; it is expected to generate 22 percent of the European Union's electricity by 2010.) Efficient energy use often yields annual after-tax returns of 100 to 200 percent on investment. Its frequent fringe benefits are even more valuable: 6 to 16 percent higher labor productivity in energy-efficient buildings, 40 percent higher retail sales in stores with good natural lighting, and improved output and quality in efficient factories. Efficiency also has major policy advantages. It is here and now, not a decade away. It improves the environment and protects the earth's climate. It is fully secure, already delivered to customers, and immune to foreign potentates and volatile markets. It is rapidly and equitably deployable in the market. It supports jobs all across the United States rather than in a few firms in one state. Yet the energy options now winning int he marketplace seem oddly invisible, unimportant, and disfavored in current national strategy.

Those who have forgotten the power of energy efficiency should remember the painful business lessons learned from the energy policies of the early 1970s and the 1980s. Energy gluts rapidly recur whenever customers pay attention to efficiency—because the nationwide reserve of cheap, qualitatively superior savings from efficient energy use is enormous and largely accessible. That overhand of untapped and unpredictably accessed efficiency presents an opportunity for entrepreneurs and policymakers, but it also poses a risk to costly supply investments. That risk is now swelling ominously.

In the early 1980s, vigorous efforts to boost both supply and efficiency succeeded. Supply rose modestly while efficiency soared.

A BARREL SAVED, A BARREL EARNED

If oil were found and profitably extracted from the refuge, its expected peak output would equal for a few years about one percent of the world oil market. Senator FRANK MURKOWSKI (R–Alaska) has claimed that merely announcing refuge leasing would bring down world oil prices. Yet even a giant Alaskan discovery several times larger than the refuge would not stabilize world oil markets. Oil prices reached their all-time high, for example, just as such a huge field, in Alaska's Prudhoe Bay, neared its maximum output. Only energy efficiency can stabilize oil prices—as well as sink them. And only a tiny fraction of the vast untapped efficiency gains is needed to do so.

What could the refuge actually produce under optimal conditions? Starting about ten years from now, if oil prices did stay around $22 per barrel, if Congress approved the project, and if the refuge yielded the USGS's mean estimate of about 3.2 billion barrels of profitable oil, the 30-year output would average a modest 292,000 barrels of crude oil a day. (This estimate also assumes that such oil would feed U.S. refineries rather than go to Asian markets, as some Alaskan oil did in 1996–2000.) Once refined, that amount would yield 156,000 barrels of gasoline per day—enough to run 2 percent of American cars and light trucks. That much gasoline could be saved if light vehicles became 0.4 mpg more efficient. Compare that feat to the one achieved in 1979—85, when new light vehicles on average gained o.4 mpg every 5 months.

Equipping cars with replacement tires as efficient as the original ones would save consumers several ''refuges'' full of crude oil. Installing superinsulating windows could save even more oil and natural gas while making buildings more comfortable and cheaper to construct. A combination of all the main efficiency options available in 1989 could save today the equivalent of 54 ''refuges''—but at a sixth of the cost. New technologies for saving energy are being found faster than the old ones are being used up—just like new technologies for finding and extracting oil, only faster. As gains in energy efficiency continue to outpace oil depletion, oil will probably become uncompetitive even at low prices before it becomes unavailable even at high prices. This is especially likely because the latest efficiency revolution squarely targets oil's main users and its dominant growth market—cars and light trucks—where gasoline savings magnify crude-oil savings by 85 percent.

New American cars are hardly models of fuel efficiency. Their average rating of 24 mpg ties for a 20-year low. The auto industry can do much better—and is now making an effort. Briskly selling hybrid-electric cars such as the Toyota Prius (a Corolla-class 5-seater) offer 49 mpg, and the Honda Insight (a CRX-class 2-seater) gets 67 mpg. A fleet that efficient, compared to the 24 mpg average, would save 26 or 33 refuges, respectively. General Motors, DaimlerChrysler, and Ford are now testing family sedans that offer 72—80 mpg. For Europeans who prefer subcompact city cars, Volkswagen is selling a 4-seater at 78 mpg and has announced a smaller 2003 model at 235 mpg. Still more efficient cars powered by clean and silent fuel cells are slated for production by at least eight major automakers starting in 2003–5. An uncompromised fuel-cell vehicle—the Hypercar℠—has been designed and costed for production and would achieve 99 mpg; it is as roomy and safe as a midsized sport-utility vehicle but uses 82 percent less fuel and no oil. Such high-efficiency vehicles, which probably can be manufactured at competitive cost, could save globally as much oil as OPEC now sells; when parked, the cars' dual function as plug-in power stations could displace the world's coal and nuclear plants many times over.

As long as the world runs largely on oil, economics dictates a logical priority for displacing it. Efficient use of oil wins hands down on cost, risk, and speed. Costlier options thus incur an opportunity cost. Buying costly refuge oil instead of cheap oil productivity is not simply a bad business decision; it worsens the oil-import problem. Each dollar spent on the costly option of refuge oil could have bought more of the cheap option of efficient use instead. Choosing the expensive option causes more oil to be used and imported than if consumers had bought the efficiency option first. The United States made exactly this mistake when it spent $200 billion on unneeded (but officially encouraged) nuclear and coal plants in the 1970s and 1980s. The United States now imports oil, produces nuclear waste, and risks global climate instability partly because it bought those assets instead of buying far cheaper energy efficiency.

Drilling for refuge oil is a risk the nation should consider taking only if no other choice is possible. But other choices abound. If three or four percent of all U.S. cars were as efficient as today's popular hybrid models, they would save the equivalent of all the refuge's oil. In all, many tens of time more oil is available—sooner, more surely, and more cheaply—from proven energy efficiency. The cheaper, faster energy alternatives now succeeding in the marketplace are safe, clean, climate-friendly, and overwhelmingly supported by the public. Equally important, they remain profitable at any oil price. They offer economic, security, and environmental benefits rather than costs. If any oil is beneath the refuge, its greatest value just might be in holding up the ground beneath the people and animals that live there.

Mr. TAUZIN. Mr. Chairman, I yield 1 minute to the gentleman from California (Mr. ROHRABACHER).

Mr. ROHRABACHER. Mr. Chairman, as a young reporter, I remember the debate over the Alaskan pipeline. I remember it very vividly. I remember